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March 19, 1996

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William F. Caton
Acting Secretary
Federal Communications Commission
Mail Stop 1170
1919 M Street, N.W., Room 222
Washington, D.C. 20554

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MAR 19 1996

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Dear Mr. Caton:


Re: CC Docket No. 94-54, Equal Access and Interconnection Pertaining to Commercial Mobile Radio Services

Please associate the attached affidavit of Professor Jerry A. Hausman, MacDonald Professor of Economics at Massachusetts Institute of Technology with the above-referenced docket.

We are submitting two copies of this notice in accordance with Section 1.1206(a)(1) of the Commission's Rules.

Please stamp and return the provided copy to confirm your receipt. Please contact me should you have any questions or require additional information concerning this matter.

Sincerely,



Attachment

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Statement of Jerry A. Hausman

I. Response to Economists Incorporated

1. Economists Incorporated (EI) state that a roaming requirement for a transitional period for PCS as proposed by Pacific Telesis is unnecessary. EI claim instead that a PCS provider could sign a contract with a cellular carrier which has roaming capability because the FCC requires cellular carriers to provide roaming to cellular subscribers. This claim is not correct because a roaming contract is specific to a given carrier and does not permit a multi-party roaming arrangement. EI claims that the PCS provider would become a party to the roaming agreement with all other cellular carriers which is not how the actual contracts are written. The EI proposal also does not make economic sense because it leads to significant extra transaction costs as I explain below.

2. EI state (p. 2) that the PCS subscribers could be treated as cellular subscribers outside of their home area. However, numerous extra agreements between companies would be required to determine how to treat the PCS customers, and there would also need to be extra billing runs sorting out which customer used which minutes of roaming. EI never analyze the extra costs which their proposal would create, even if it were permissible under roaming contracts. Thus, the EI approach, even if permissible, would create extra economic costs for PCS providers which would place them at a competitive disadvantage to cellular carriers because of regulatory asymmetric treatment. Just as cellular carriers have the ability to provide roaming to their customers outside their home territory, PCS providers should be able to provide a similar roaming service, especially since it will not create any additional costs for the cellular system which provides the roaming service as I explained in my initial statement (July 10, 1995).

3. In the earlier statement I proposed a transitional roaming requirement for cellular operators similar to their current requirement for other cellular systems. The requirement would be designed to impose no increase in costs on cellular operators. The requirement would be pro-competitive and will increase consumer welfare because PCS subscribers will be able to roam throughout the U.S.

4. Roaming is very different from resale because roaming takes place in territories where a facilities based carrier does not provide service and cannot provide service because it does not have a license in the "foreign" territory. Roaming agreements would be used by facilities based PCS providers who had built out their own territories, but whose customers desired service in other geographical territories. This out of region PCS service may not be initially available for reasons which I discussed in my original statement-- mainly the lack of a nationwide standard for PCS technology. A transitional roaming requirement would solve this problem. Resellers, on the other hand, do not build networks for CMRS, but instead they market other providers services within a given territory. I discuss the economic differences between roaming and resale further in Section II of this statement.

5. EI make two fundamental economic mistakes with their claim that the same two carriers must exist in each market before competitive problems could arise. Thus, the identical carriers would need to provide service in say both San Francisco and Chicago before a competitive problem would arise, according to EI. However, note that even if one carrier refuses service, the PCS provider is then left to bargain with the remaining cellular provider which will be in a monopoly bargaining position, until compatible PCS systems are operating. Bargaining with a firm in a monopoly position is the antithesis of competition. The firm in the monopoly position will be unregulated and the PCS carrier has no recourse to arbitration. The second mistake EI makes is to consider only the situation where the same two cellular carriers are present.

Consideration only of "matched pairs" (EI, pp. 2-3) omits all the non-matched pairs where each carrier has an economic incentive to deny roaming service for reasons I gave in my previous affidavit. Thus, a given cellular carrier may be in New York and decide not to provide roaming to a PCS provider's customers from San Francisco because they compete there while the other cellular firm in New York may face competition in Los Angeles (a different MSA). The two firms do not have to agree (conspire) to deny service; they both merely need to find it in their economic interest unilaterally to do so given the expected action of the other cellular firm. Each firm may well decide not to provide roaming to the San Francisco PCS providers customers because it will make PCS less attractive, and the cellular firm can expect the other cellular firm to come to the same conclusion without any need for an agreement since the economic incentives are similar. Note that this situation exists in almost all of the top 30 markets. Thus, all the various combinations across markets must be considered to analyze the economic incentives of cellular carriers.

6. I agree with EI (p. 3) that PCS networks will find it profitable to offer roaming arrangements once their networks are constructed. However, the transitional problem of compatible PCS systems remains. Thus, it is this market failure of incompatible PCS systems which I identified in my original affidavit (§ 15) as the primary cause of the need for a transitional roaming rule. EI ignore this cause of market failure and attempt to focus only on market power causes of market failure. Network incompatibility problems are likely to be an important cause of market failure.

7. EI attempt to claim that the problem is "ephemeral" (p. 9) They point to the Sprint Telecommunications Venture which plans to build a nationwide PCS network. However, they ignore the current effect on competition where PCS is operating in Washington, and the cellular providers are advertising the competitive disadvantage of lack of roaming capability of the system. Thus, the market has already demonstrated what EI deny--the

inability of PCS to roam in its initial states unless cellular provides roaming capability. The problem is not "ephemeral"--it exists in Washington today and it will soon exist in California where PacTel will turn on its systems this year.

8. EI claim that a roaming requirement would impose costs on cellular carriers by forcing them to expand capacities to supply roaming demand which may only be temporary. (p. 10) EI forget to note that cellular has been growing at 40% per year and is expected to continue this growth rate. Thus, taking the most extreme case where PCS would be 50% as large as cellular during the transition period and have similar roaming minutes (about 10% or 13.6% of revenues), even if every PCS provider stopped roaming at the same instant, which would never actually happen, the growth of cellular would replace the lost minutes in 1-2 months.¹ This period of time could hardly affect the cellular network expansion process given its inherently lumpy nature, nor would it cause costs to the cellular provider. Note that current cellular companies, e.g. AT&T, will have an incentive to shift their current cellular customers when they roam to PCS as well once they have PCS operating so that AT&T will receive the incremental roaming revenue, yet EI do not call for an end to cellular roaming requirements. Thus, no subsidies will exist under my plan which calls for PCS providers to pay for the roaming capacity that is used.

9. Lastly, EI claim that a "chilling effect" on investments could occur (p. 11). The market entry decisions have already been made for the majority of PCS spectrum so that the roaming requirement would not adversely affect these investments. PCS providers have purchased their spectrum and are obliged to build their networks. Indeed, many PCS providers are already constructing their networks. Thus, competition will not be adversely affected

¹ More realistic assumptions would decrease this time period to about 1 week or less.

in PCS by a roaming requirement. Indeed, to the extent that PCS is made more attractive to consumers by the ability to roam, PCS providers will have an increased economic incentive to build out their networks more speedily than otherwise. Furthermore, Pacific Telesis will pay for the roaming it uses so that no free riding occurs.

10. The Commission decided not to offer nationwide PCS licenses, a decision which I recommended. However, the lack of a national PCS standard, at least initially, is an outcome of the Commission decision. A network coordination failure is the likely result, and since a nationwide analogue cellular standard exists to solve the problem, I recommend that the Commission utilize the existing cellular networks as a transitional solution. EI have not identified any real costs which the PCS providers will not pay. Since the Commission depended on future PCS Competition to provide competition to cellular, a transitional roaming requirement which allows this competition will increase competition and will be in the public interest.

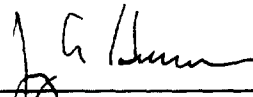
II. Economic Differences Between Roaming and Resale

11. Pacific Telesis has recommended that the Commission extend current roaming rules from cellular providers to PCS providers for a limited period of time. It is important to note the significant economic differences between roaming and resale from a cellular or PCS providers economic standpoint. Roaming allows a facilities-based provider to offer service to its customers outside of its licensed territory. However, all the economic incentives remain in the presence of roaming for a PCS provider to construct its network within its geographical territory in an economical and expeditious manner. To the extent that roaming makes the PCS service more attractive to consumers, roaming will have the effect of increasing the economic incentives for the PCS provider to construct and enlarge its network.

12. Resale is typically done by a non-facilities based provider.² A reseller acquires a block of numbers from the facilities based provider in the desired territory. Resellers also are subject to any applicable state regulations relating to resellers. My research in cellular over the years has never found any pro-competitive benefit of resellers in cellular, either in the form of lower prices or greater penetration. I am unaware of any research by others which demonstrates that cellular resale has led to lower prices or greater output. Indeed, my research demonstrates that protection of resellers by the CPUC in California through a mandatory retail margin led to higher cellular prices for consumers.

13. To provide roaming, a facilities based provider must negotiate a roaming agreement with another facilities based provider. This agreement typically provides that the two licensees will allow each other's subscribers to use each other's network in a seamless manner (i.e. without having to give additional information such as a credit card number to initiate a call and to receive calls outside of the home territory) and it also determines how the calls will be billed. Thus, it is a much more desirable method to provide service ubiquity to customers than becoming a reseller in every state in which the facilities based provider would like its customers to have service. Transactions costs and costs of serving customers are considerably less with roaming than if a PCS provider were required to become a reseller in every state outside its territory.

March 18, 1996



Jerry A. Hausman

² An exception existed in cellular when a facilities based competitor was allowed to resell its competitor's services for a limited time to mitigate the headstart that the B Block provider had.